

WHAT IS CLAIMED IS:

1. A method for coating a liquid composition from an applicator to a surface of a moving web, the web being conveyed along a path through a coating apparatus, the coating apparatus including a coating station for applying a coating to the surface of the web, the coating station including a backing roller for supporting the web and a coating hopper for depositing a liquid coating on the web, comprising the steps of:

a) wrapping the web in a partial wrap around the backing roller, the backing roller being provided with a relieved surface, the relieved surface having a pattern of circumferential grooves that provides venting of entrained air, the pattern having a geometry and depth such that any temperature gradient in the web caused by the circumferential grooves in the backing roller does not disturb the coating applied by the coating apparatus;

b) providing a source of liquid coating composition for coating the web;
and

c) transporting the web past the coating station, where the liquid composition is applied to the surface of the web from the coating hopper, whereby the coating of liquid composition is not disturbed by temperature gradients in the web.

2. The method claimed in claim 1, wherein the coating method is bead coating.

3. The method claimed in claim 2, wherein the pattern of circumferential grooves includes greater than 1.6 grooves per mm.

4. The method claimed in claim 1, wherein the grooves have a depth of 90 μm .

5. The method claimed in claim 1, wherein the width of the relieved surface on the backing roller is equal to or greater than the width of the liquid coating to be applied to the web.

6. Apparatus for coating a liquid composition from an applicator to a surface of a moving web, the web being conveyed along a path through the coating apparatus, comprising: a coating hopper for delivering a liquid coating composition to the web; and a backing roller having a relieved surface having a pattern of circumferential grooves that provides venting of entrained air, the pattern having a geometry and depth such that any temperature gradient in the web caused by the circumferential grooves in the backing roller does not disturb the coating applied by the coating apparatus.

7. The apparatus claimed in claim 6, wherein the coating apparatus is a bead coating apparatus.

8. The apparatus claimed in claim 6, wherein the pattern of circumferential grooves includes at least 1.6 grooves per mm.

9. The apparatus claimed in claim 6, wherein the grooves have a depth of 90 μm .

10. The apparatus claimed in claim 6, wherein the width of the relieved surface on the backing roller is equal to or greater than the width of the liquid coating to be applied to the web.